

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES REMOVING THE BULBS FROM THE EXISTING SIGNAL HEADS AND REPLACING THEM WITH NEW LED SIGNAL MODULES AS WELL AS, REMOVING THE EXISTING PEDESTRIAN SIGNALS AND PUSHBUTTONS AND UPGRADING THEM WITH NEW APS/CPS WITH PUSHBUTTONS AT THE INTERSECTION OF MD 193 (UNIVERSITY BLVD) AT VALLEY VIEW AVENUE IN MONTGOMERY COUNTY.

MD 193 IS CONSIDERED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET IS INSTALLED AT THIS LOCATION. THE INTERSECTION OPERATES IN A SEMI ACTUATED MODE USING 8 NEMA PHASES. THE NORTH-SOUTH APPROACHES RUN SEPARATELY.

SPECIAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 30, 104.12 - 01, 104.13 - 01, 104.31 - 01, 104.32 - 01, 104.81 - 02.
- APS WILL FUNCTION AS FOLLOWS:  
TO CROSS MD 193
  - WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE WAIT TO CROSS UNIVERSITY AT VALLEY VIEW
  - WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.  
TO CROSS VALLEY VIEW AVENUE
  - WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE WAIT TO VALLEY VIEW AT UNIVERSITY
  - WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.
- THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. JEFFREY WENZ, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7318

MR. AUGIE REBISH, ASSISTANT DISTRICT ENGINEER - UTILITY  
PHONE: (301) 513-7350

MR. WAYNE MOWDY, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

MR. RICHARD L. DAEF SR., CHIEF - TRAFFIC OPERATIONS DIVISIONS  
PHONE: (410) 787-7630

THE POWER COMPANY REPRESENTATIVE IS:  
MR. STEVE CUSTER  
POTOMAC ELECTRIC POWER COMPANY  
8300 OLD MARLBORO PIKE  
UPPER MARLBORO, MARYLAND 20772  
PHONE: (301) 548-4333

KAMAL HAMUD, CHIEF TRAFFIC OPERATIONS DIVISION  
PHONE: (240) 777-8761

MR. KEITH LORD  
MONTGOMERY COUNTY  
PHONE: (301) 279-1291

MR. EUGENE BAILEY  
SIGN SHOP  
PHONE: (410) 787-7676

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
973023	FLAT SHEET ALUMINUM POLE MOUNTED SIGNS:	SF	8
	R10-3(1) (9"x15") SIGN TO READ, "UNIVERSITY BLVD"	EA	4
	R10-3(1) (9"x15") SIGN TO READ, "VALLEY VIEW AVE"	EA	4

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	2
800000	REMOVE AND DISPOSE OF EXISTING EQUIPMENT	LS	1
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	4
801607	INSTALL SHEET ALUMINUM SIGN	SF	8
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	55
805135	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	50
813023	RELOCATE EXISTING GROUND MOUNTED SIGN	SF	6
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	4
800000	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION	EA	8
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	1163
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	1216
800000	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON AND SIGN	EA	8
800000	2-WIRE CENTRAL CONTROL UNIT	EA	1
800000	REMOVE EXISTING BULB AND INSTALL 12 INCH LED VEHICULAR TRAFFIC SIGNAL MODULE	EA	49
800000	DISCONNECT, PULL BACK AND REMOVE EXISTING CABLE	LF	2379

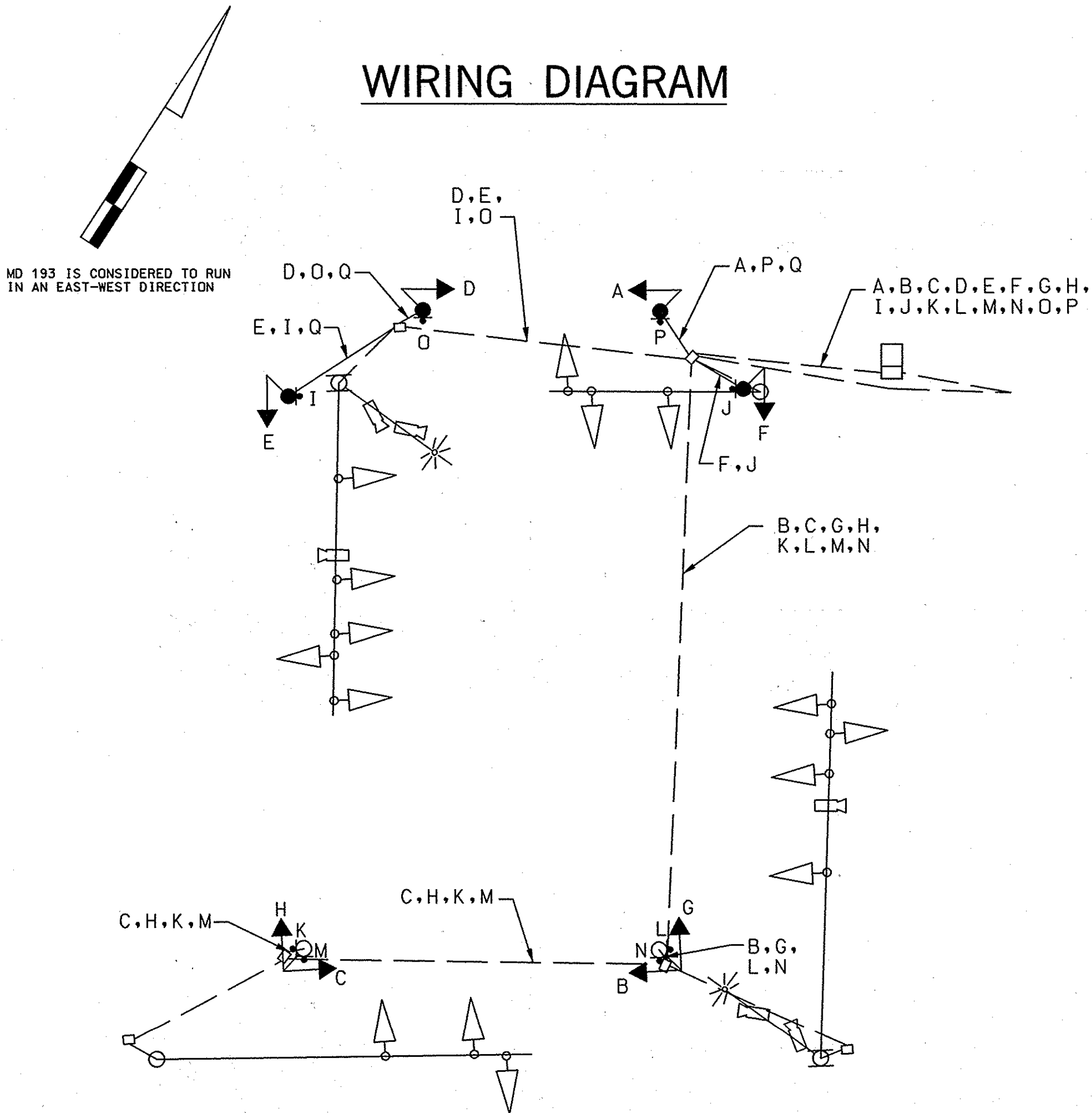
C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
NONE			

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
PHASE 1 AND 5	←G-	←G-	R	R	←G-	←G-	←G-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE	←Y-	←Y-	R	R	←Y-	←Y-	←Y-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 AND 6	←G-	←G-	G	G	←R-	←R-	←R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 6 CHANGE	←Y-	←Y-	Y	Y	←R-	←R-	←R-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	←R-	←R-	R	R	←G-	←G-	←G-	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 AND 5 CHANGE	←R-	←R-	R	R	←Y-	←Y-	←Y-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	←R-	←R-	G	G	←R-	←R-	←R-	G	G	R	R	R	R	R	R	W/K	W/K	W/K	W/K	DW	DW	DW	DW
PED CLEARANCE	←R-	←R-	G	G	←R-	←R-	←R-	G	G	R	R	R	R	R	R	FLDW	FLDW	FLDW	FLDW	DW	DW	DW	DW
2 AND 6 CHANGE	←R-	←R-	Y	Y	←R-	←R-	←R-	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4	←R-	←R-	R	R	←R-	←R-	←R-	R	R	←G-	←G-	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 CHANGE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT	←R-	←R-	R	R	←R-	←R-	←R-	R	R	←G-	←G-	G	R	R	R	DW	DW	DW	DW	DW	W/K	W/K	DW
PED CLEARANCE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	←G-	←G-	G	R	R	R	DW	DW	DW	DW	DW	FLDW	FLDW	DW
4 ALT CHANGE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3	←R-	←R-	R	R	←R-	←R-	←R-	R	R	R	R	R	←G-	←G-	G	DW	DW	DW	DW	DW	DW	DW	DW
3 CHANGE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 ALT	←R-	←R-	R	R	←R-	←R-	←R-	R	R	R	R	R	←G-	←G-	G	DW	DW	DW	DW	W/K	DW	DW	W/K
PED CLEARANCE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	R	R	R	←G-	←G-	G	DW	DW	DW	DW	FLDW	DW	DW	FLDW
3 ALT CHANGE	←R-	←R-	R	R	←R-	←R-	←R-	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



KEY

- A,B,C,D,E,F,G,H } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- I,J,K,L,M,N,O,P } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- Q } 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 193 (UNIVERSITY BLVD) - FARRAGUT AVE TO MD 586  
MD 193 (UNIVERSITY BLVD) @ VALLEY VIEW AVE

TRAFFIC SIGNAL - GENERAL INFORMATION

SCALE: NTS ADVERTISED DATE: 05/02/2008 CONTRACT NO.: MOS785177

DESIGNED BY: JEH COUNTY: MONTGOMERY  
DRAWN BY: JEH LOGMILE: 15019300.95  
CHECKED BY: DSU TMS NO.: 1766  
F.A.P. NO.: SEE TITLE SHEET TOD NO.:

TS NO. 4208 DRAWING: SG-4 OF 8 SHEET NO. 41 OF 45

